UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,396	10/20/2003	Juba M. Salo	042933/269778	2878

826   7590   09/03/2008
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ART UNIT	PAPER NUMBER
2137	

MAIL DATE	DELIVERY MODE
09/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 April 2008</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-36</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-36</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   In view of the Pre-Appeal Brief filed on April 29, 2008 PROSECUTION IS HEREBY

REOPENED. A non-Final Office Action is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following

two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37

CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an

appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee

can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have

been increased since they were previously paid, then appellant must pay the difference between

the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing

below:

/Emmanuel L. Moise/

Supervisory Patent Examiner, Art Unit 2137

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-4, 10-13, 19-22 and 28-31 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Puhl et al. (hereinafter referred to as Puhl, US 6,223,291 B1) in view of Chou

et al. (hereinafter referred to as Chou, US Pat. No.: 7,346,168 B2) and further in view of Moshir

et al. (hereinafter referred to as Moshir, US Pub. No.: 2004/0003266 A1)

As per claim 1, 10, 19 and 28:

        Puhl discloses a system, a method, a computer readable medium, an apparatus

respectively for downloading pushed content comprising; a terminal comprising a processor

configured to receive download content and has a digital signature. The processor is implicitly

stated by the prior art. Wherein the processor is configured to authenticate the service loading

content based upon the digital signature, and if the service loading content is authenticated,

pulling the download content to the terminal and wherein the processor is configured to

authenticate the service loading content and pulling the downloading content (col. 13, lines 30-

46; col. 13, lines 47-67) and independent of interaction for a user of the terminal (col. 8, lines 2-

4, lines 10-12).

        Puhl does not explicitly disclose receiving authenticating service loading content. Chou,

in analogous art, however, discloses receiving authenticating service loading content (column 2:

lines 10-24; column 3: lines 30-50; column 6: lines 50-67; column 7: lines 1-7). Therefore, it

would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system disclosed by Puhl to include receiving authenticating service loading content. This modification would have been obvious because a person having ordinary skill in the art would have been motivated by the desire to provide for the secure delivery of converged services to users of wireless devices in a wireless environment as suggested by Chou in (column 1: lines 63-67; column 2: lines 1-7).

Puhl and Chou does not explicitly disclose wherein the processor is configured to determine if an interruption occurs in pulling the download content such that the terminal receives a portion but less than all of the download content, and if an interruption occurs in receiving the content, recover the download content including receiving a remaining portion of the download content without also receiving at least part of the previously received portion. Moshir, in analogous art, however, disclose wherein the processor is configured to determine if an interruption occurs in pulling the download content such that the terminal receives a portion but less than all of the download content, and if an interruption occurs in receiving the content, recover the download content including receiving a remaining portion of the download content without also receiving at least part of the previously received portion (0064; 0164; 0180). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system disclosed by Puhl and Chou to include wherein the processor is configured to determine if an interruption occurs in pulling the download content such that the terminal receives a portion but less than all of the download content, and if an interruption occurs in receiving the content, recover the download content including receiving a

remaining portion of the download content without also receiving at least part of the previously received portion. This modification would have been obvious because a person having ordinary skill in the art would have been motivated by the desire to provide software deployment, software installation, software updating, and file distribution based on software and patch finger printing across multiple operating systems and devices, across a network as suggested by Moshir in (019-0020).

As per claim 2, 11, 20 and 29:

Puhl discloses the processor of the terminal is configured to verify the digital signature with a public key to thereby authenticate the service loading content (col. 13, lines 30-40).

As per claim 3, 12, 21 and 30:

Puhl discloses a push initiator configured to digitally sign the service loading content with a private key associated with the public key and thereafter transmitting the service loading content to the terminal (col. 3, lines 11-14).

As per claim 4, 13, 22 and 31:

Puhl discloses an origin server associated with the download content, wherein the service loading content identifies the origin server associated with the download content (see para. 0009 of the background of the applicant invention); the processor of the terminal is configured to send

a request for the download content to the origin server when the service loading content is authenticated (col. 13, lines 30-46) wherein the processor is configured to receive the download content from the origin server in response to the request (col. 13, lines 47- 49).

4.   Claims 5, 14, 23 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Puhl, Chou and Moshir in view of Chakravorty et al. (US 2004/0176080 A1).

As per claim 5, 14, 23 and 32:

Puhl and Landsman disclose except that the processor of the terminal is configured to operate a download agent, wherein the download agent is configured to receive a download descriptor and thereafter receiving the download content.

Chakravorty discloses a download descriptor and thereafter receiving the download content (see abstract). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chakravorty to include the use of a download descriptor in order to provide the user/device instructions on how to download content, such that the user/device may know where content resides and how to configure one system to receive content.

5.   Claim 6-7, 15-16, 24-25 and 33-34 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Puhl, Chou and Moshir in view of Chakravorty et al. (US 200410176080 A1)

as applied to claim 5 above, and further in view of Singh et al. (US 200310147369 A1).

As per claim 6-7, 15-16, 24-25 and 33-34:

Puhl, Landsman and Chakravorty discloses all the limitation of claim 6-7, 15-16, 24-25

and 33-34 except that wherein determining if an interruption occurs determining if an interrupt

occurs in receiving the plurality of data packets such that the download agent receives less than

the plurality of data packets of the download content, and if an interruption occurs in receiving

the plurality of data packets, wherein recovering the downloaded content comprises recovering

the download content such that the download agent receives the plurality of data packets.

Singh discloses wherein determining if an interruption occurs determining if an interrupt

occurs in receiving the plurality of data packets such that the download agent receives less than

the plurality of data packets of the download content, and if an interruption occurs in receiving

the plurality of data packets, wherein recovering the downloaded content comprises recovering

the download content such that the download agent receives the plurality of data packets (para.

0354, lines 1-7; para 0357, lines 1-9). Therefore it would have been obvious to one of ordinary

skill in the art at the time of the invention to modify Puhl to include the use of an agent for

detection an interrupt during content downloading in order to ensure wireless device receive all

data packets that the device is supposed to receive from the distributor, as wireless connectivity

at times are not reliable (para. 0355).

6.   Claim 8-9, 17-18, 26-27 and 35-36 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Puhl, Chou and Moshir in view of Singh et al. (US 2003/0147369 A1).

        Puhl and Landsman disclose all the limitation of claims 8-9, 17-18 and 26-27 except for

the terminal is configured to operate a download agent configured to receive the plurality of data

packets and receiving at least one information packet regarding at least one group of at least on

data packet and determining if an interruption occurs while receiving the packets, if an

interruption occurs recover the missing packets the was not previously received (para. 0354,

lines 1-7; para 0357, lines 1-9).

        Singh discloses the download agent is configured to determine if an interrupt occurs in

receiving the plurality of data packets such that the download agent receives less than the

plurality of data packets of the download content, and if an interruption occurs in receiving the

plurality of data packets, recovering the download content such that the download agent receives

the plurality of data packets (para. 0354, lines 1-7; para 0357, lines 1-9).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Puhl and Landsman to include the use of an agent for detection an interrupt

during content downloading in order to ensure wireless device receive all data packets that the

device is supposed to receive, from the distributor, as wireless connectivity at times are not

reliable (para. 0355).

As per claim 2:

The system according to Claim 1, wherein the processor of the terminal is configured to verify the digital signature with a public key to thereby authenticate the service loading content.

As per claim 3:

The system according to Claim 2 further comprising: a push initiator configured to digitally sign the service loading content with a private key associated with the public key, and thereafter transmit the service loading content to the terminal.

As per claim 4:

The system according to Claim 1 further comprising:

an origin server associated with the download content, wherein the service loading content identifies the origin server associated with the download content,

wherein the processor of the terminal is capable of sending configured to send a request for the download content to the origin server when the service loading content is authenticated, and wherein the processor is capable of receiving configured to receive the download content from the origin server in response to the request.

As per claim 5:

A-The system according to Claim 4, wherein the processor of the terminal is capable of operating configured to operate a download agent, wherein the download agent is capable of receiving configured to receive a download descriptor, and thereafter receiving receive the download content.

As per claim 6:

The system according to Claim 5, wherein the download content comprises a plurality of data packets, and wherein the download agent is capable of determining configured to determine if an interruption occurs in receiving the plurality of data packets such that the download agent receives less than the plurality of data packets of the download content, and if an interruption occurs in receiving the plurality of data packets, recovering- recover the download content such that the download agent receives the plurality of data packets.

As per claim 7:

The system according to Claim 6, wherein the download agent is further capable of determining configured to determine at least one remaining data packet to be received by the download agent to thereby complete reception of the plurality of data packets of the download content, instructing instruct the origin server to send the at least one remaining data packet, and receiving receive the at least one remaining data packet such that the download agent receives the plurality of data packets.

As per claim 8:

The system according to Claim 4, wherein the download content comprises a plurality of data packets, and wherein the processor of the terminal is capable of operating configured to operate a download agent capable of receiving configured to receive the plurality of data packets and receiving receive at least one information packet regarding at least one group of at least one data packet.

As per claim 9:

The system according to Claim 8, wherein the download agent is capable of monitoring configured to monitor the received data packets to determine, based upon at least one information packet, if an interruption occurs in receiving the plurality of data packets such that the download agent receives less than the plurality of data packets of the download content, and wherein the download agent is capable of recovering configured to recover the download content such that the download agent receives the plurality of data packets if an interruption occurs in receiving the plurality of data packets.

As per claim 10:

A method for downloading pushed content to a terminal, the method comprising:

receiving service loading content at a terminal, wherein the service loading content identifies download content and has a digital signature;

authenticating the service loading content based upon the digital signature; and

pulling the download content to the terminal when the service loading content is authenticated, wherein the service loading content is authenticated, and the download content is pulled, in response to receiving the service loading content and independent of interaction from a user of the terminal,

wherein pulling the download content includes determining if an interruption occurs in pulling the download content such that the terminal receives a portion but less than all of the content, and if an interruption occurs in receiving the content, recovering the download content including receiving a remaining portion of the download content without also receiving at least part of the previously received portion.

As per claim 11:

The method according to Claim 10, wherein authenticating the service loading content comprises verifying the digital signature with a public key.

As per claim 12:

The method according to Claim 11 further comprising:

digitally signing the service loading content with a private key associated with the public key; and

transmitting the service loading content to the terminal.

As per claim 13:

The method according to Claim 10, wherein the service loading content identifies an origin server associated with the download content, and wherein pulling the download content comprises:

sending a request for the download content to the origin server when the service loading content is authenticated; and

receiving the download content at the terminal from the origin server in response to the request.

As per claim 14:

The method according to Claim 13, wherein receiving the download content comprises receiving a download descriptor, and thereafter receiving the download content.

As per claim 15:

The method according to Claim 14, wherein the download content comprises a plurality of data packets, and wherein receiving the download content further comprises:

wherein determining if an interruption occurs comprises determining if an interruption occurs in receiving the plurality of data packets such that the terminal receives less than the plurality of data packets of the download content,, and if an interruption occurs in receiving the plurality of data packets

wherien recovering the download content comprises recovering the download content such that the terminal receives the plurality of data packets.

As per claim 16:

The method according to Claim 15, wherein recovering the download content comprises:

determining at least one remaining data packet to be received at the terminal to thereby complete reception of the plurality of data packets of the download content;

instructing the origin server to send the at least one remaining data packet; and

receiving the at least one remaining data packet such that the terminal receives the plurality of data packets.

As per claim 17:

The method according to Claim 13, wherein the download content comprises a plurality of data packets, and wherein receiving the download content comprises receiving the plurality of data packets and receiving at least one information packet regarding at least one group of at least one data packet.

As per claim 18:

The method according to Claim 17, wherein receiving the plurality of data packets comprises:

monitoring the received data packets to determine, based upon at least one information packet, if an interruption occurs in receiving the plurality of data packets such that the terminal receives less than the plurality of data packets of the download content; and if an interruption occurs in receiving the plurality of data packets recovering the download content such that the terminal receives the plurality of data packets.

As per claim 19:

A computer program product for downloading pushed content to a terminal, the computer program product comprising at least one computer-readable storage medium having computer-readable program code portions stored therein, the computer- readable program code portions comprising:

a first executable portion for receiving configured to receive service loading content at a terminal, wherein the service loading content identifies download content and has a digital signature;

a second executable portion for authenticating configured to authenticate the service loading content based upon the digital signature; and

a third executable portion for pulling configured to pull the download content to the terminal when the service loading content is authenticated,

wherein the second executable portion is adapted configured to authenticate the service loading content, and the third executable portion is adapted configured to pull the download content, in response to receiving the service loading content and independent of interaction from a user of the terminal.

wherein the third executable portion is also configured to determine if an interruption occurs in pulling the download content such that the terminal receives a portion but less than all of the content, and if an interruption occurs in receiving the content, recover the download content including receiving a remaining portion of the download content without also receiving at least part of the previously received portion.

As per claim 20:

The computer program product according to Claim 19, wherein the second executable portion is adapted configured to verify the digital signature with a public key to thereby to authenticate the service loading content.

As per claim 21:

The computer program product according to Claim 20 further comprising:

a fourth executable portion for-configured to digitally signing ~the service loading content with a private key associated with the public key; and

a fifth executable portion for transmitting configured to transmit the service loading content to the terminal.

As per claim 22:

The computer program product according to Claim 19, wherein the service loading content identifies an origin server associated with the download content, and wherein the third executable portion is adapted configured to send a request for the download content to the origin server when the service loading content is authenticated, and thereafter receive the download content at the terminal from the origin server in response to the request..

As per claim 23:

The computer program product according to Claim 22, wherein the third executable portion is adapted configured to receive a download descriptor, and thereafter receive the download content.

As per claim 24:

The computer program product according to Claim 23, wherein the download content comprises a plurality of data packets, and wherein the third executable portion is further adapted configured to determine if an interruption occurs in receiving the plurality of data packets such that the terminal receives less than the plurality of data packets of the download content, and if an interruption occurs in receiving the plurality of data packets, recover the download content such that the terminal receives the plurality of data packets.

As per claim 25:

The computer program product according to Claim 24, wherein the third executable portion is adapted configured to recover the download content by determining at least one remaining data packet to be received at the terminal to thereby complete reception of the plurality of data packets of the download content, instructing instruct the origin server to send the at least one remaining data packet, and receiving receive the at least one remaining data packet such that the terminal receives the plurality of data packets.

As per claim 26:

The computer program product according to Claim 22, wherein the download content comprises a plurality of data packets, and wherein the third executable portion is adapted configured to receive the plurality of data packets and receive at least one information packet regarding at least one group of at least one data packet.

As per claim 27:

The computer program product according to Claim 26, wherein the third executable portion is further adapted configured to monitor the received data packets to determine, based upon at least one information packet, if an interruption occurs in receiving the plurality of data packets such that the terminal receives less than the plurality of data packets of the download content, and wherein the third executable portion is adapted configured to recover the download content such that the terminal receives the plurality of data packets if an interruption occurs in receiving the plurality of data packets.

As per claim 28:

An apparatus comprising:

a processor configured to receive service loading content, wherein the service loading content identifies download content and has a digital signature,

wherein the processor is configured to authenticate the service loading content based upon the digital signature,

wherein the processor is configured to pull the download content when the service loading content is authenticated, wherein the processor is configured to authenticate the service

loading content, and pull the download content, in response to receiving the service loading content and independent of interaction from a user of the apparatus,

wherein the processor being configured to pull the download content includes being configured to determine if an interruption occurs in pulling the download content such that the apparatus receives less than all of the content, and if an interruption occurs in receiving the content, recover the download content including receiving a remaining portion of the download content without also receiving at least part of the previously received portion.

As per claim 29:

The apparatus according to Claim 28, wherein the processor being configured to authenticate the service loading content includes being configured to verify the digital signature with a public key.

As per claim 30:

The apparatus according to Claim 29, wherein the processor being configured to receive service loading content includes being configured to receive digitally- signed service loading content, the service loading content having been digitally signed with a private key associated with the public key.

As per claim 31:

The apparatus according to Claim 28, wherein the service loading content identifies an origin server associated with the download content, and wherein the processor being configured to pull the download content includes being configured to:

send a request for the download content to the origin server when the service loading content is authenticated; and

receive the download content at the apparatus from the origin server in response to the request.

As per claim 32:

The apparatus according to Claim 31, wherein the processor being configured to receive the download content includes being configured to receive a download descriptor, and thereafter receive the download content.

As per claim 33:

The apparatus according to Claim 32, wherein the download content comprises a plurality of data packets, wherein the processor being configured to determine if an interruption occurs includes being configured to determine if an interruption occurs in receiving the plurality of data packets such that the apparatus receives less than the plurality of data packets of the download content, and wherein the processor being configured to recover the download content includes being configured to recover the download content such that the apparatus receives the plurality of data packets.

As per claim 34:

The apparatus according to Claim 33, wherein the processor being configured to recover the download content includes being configured to:

determine at least one remaining data packet to be received at the apparatus to thereby complete reception of the plurality of data packets of the download content;

instruct the origin server to send the at least one remaining data packet; and

receive the at least one remaining data packet such that the apparatus receives the plurality of data packets.

As per claim 35:

The apparatus according to Claim 31, wherein the download content comprises a plurality of data packets, and wherein the processor being configured to receive the download content includes being configured to receive the plurality of data packets and receive at least one information packet regarding at least one group of at least one data packet.

As per claim 36:

The apparatus according to Claim 35, wherein the processor being configured to receive the plurality of data packets further includes being configured to:

monitor the received data packets to determine, based upon at least one information packet, if an interruption occurs in receiving the plurality of data packets such that the apparatus receives less than the plurality of data packets of the download content; and if an interruption

occurs in receiving the plurality of data packets, recover the download content such that the

apparatus receives the plurality of data packets.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. See the notice of reference cited in form PTO-892 for additional prior art.

Contact Information

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Techane J. Gergiso whose telephone number is (571) 272-3784

and fax number is (571) 273-3784. The examiner can normally be reached on 9:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization

where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/T. J. G./

Examiner, Art Unit 2137

/Emmanuel L. Moise/

Supervisory Patent Examiner, Art Unit 2137